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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/605,186      | 09/12/2003  | Mark Keenan          | 001-225             | 2185             |

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JEFFREY FURR  
253 N. MAIN STREET  
JOHNSTOWN, OH 43031

EXAMINER

AHLUWALIA, NAVNEET K

ART UNIT PAPER NUMBER

2166

DATE MAILED: 08/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |   |                                      |  |
|------------------------------|---|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/605,186    | <b>Applicant(s)</b><br>KEENAN ET AL. |  |
|                              | <b>Examiner</b><br>Navneet K. Ahluwalia | <b>Art Unit</b><br>2166              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 June 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06/07/2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This communication is in response to the Amendment filed June 7, 2006.

#### ***Drawings***

2. In order to avoid abandonment, the drawing informalities noted in the paper mailed on 02/07/2006, must now be corrected. Correction can only be effected in the manner set forth in the above noted paper. The resubmission of Figure 1 is accepted. Figure 2 has not been submitted but is stated as submitted and Figures 4 – 6 do not meet the condition of clarity required.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1 – 15 have been cancelled and claims 16 – 28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In Claim 16 the preamble states “search using one or more of a set of sampling, heuristic, genetic or other non-deterministic algorithm” not explained in the specification.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 26 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 26 does not further limit claim 16.

### ***Response to Arguments***

7. Claims 16 – 28 are pending in this Office Action. After a further search and a thorough examination of the present application, claims 16 – 28 remain rejected. The objection to the specification is withdrawn in view of the amendment. The claim objection to claim 11 is withdrawn in response to the cancellation of claim 11.

8. Applicant's arguments with respect to claim 16 – 28 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 16 – 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krupin et al. ('Krupin' herein after) (US 6,751,611 B2) further in view of Fox et al. ('Fox' herein after) (US 2003/0069873 A1).

With respect to claim 16,

Krupin discloses a system solving a constraint satisfaction problem such as performing a search query (Figure 4, Krupin) comprising: having user choose a first group of constraint (column 6 lines 31 – 39, Krupin); searching for a solution based on the first group of constraints (column 6 lines 52 – 57, Krupin) having said system also search for solutions using modified sets of said constraints such as subsets of said constraints such as subsets of said constraints and additional constraints (column 6 lines 39 – 50, Krupin), keeping intermediate results; presenting for review analysis or results of said solutions for such modified sets of constraints (column 9 lines 58 – 63, Krupin); allowing for the user to determine whether or not to search or present results (column 11 lines 1 – 9, Krupin) for solutions using a set of such modified constraints

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(column 7 lines 3 – 9, Krupin); searching or providing results on said modified constraints (column 7 lines 24 – 39, Krupin); and having said system search using one or more of a set of sampling, heuristic, genetic or other non-deterministic algorithm which includes relaxing, tightening or modifying the constraints before reporting said results (column 11 lines 10 - 21).

Krupin however does not explicitly disclose the algorithm being one of sampling, heuristic, genetic or other non-deterministic algorithm.

Fox teaches the use of sampling, heuristic, genetic or other non-deterministic algorithms (page 4 paragraph 0045 lines 10 – 15, Fox).

It would have been obvious to one of ordinary skill in the art of data processing at the time of the present invention to combine the teachings of cited references because the use of sampling, genetic, heuristic and non-deterministic algorithm of Fox's system would allow users to build and tailor a query as they further define the topic of interest, moving from a generic search to specific topic areas through query inputs (page 2 paragraph 0016 lines 6 – 10, Fox). Furthermore the use of algorithms would increase the system precision, affecting the number of documents that are retrieved as relevant (page 2 paragraph 0016 lines 10 – 14, Fox).

With respect to claim 17,

Krupin discloses a system according to claim 16 in which includes having said user access the system using the Internet (column 5 lines 42 – 54, Krupin).

With respect to claim 18,

Krupin discloses a system according to claim 16 in which includes having said user access the system through a client-server relationship (column 5 lines 42 – 54, Krupin).

With respect to claim 19,

Krupin discloses a system according to claim 16 in which includes having said user enter constraint using an entry means (Figure 4, column 2 lines 19 – 24, Krupin).

With respect to claim 20,

Krupin discloses a system according to claim 19 in which having said entry mean: is entering text (Figure 4, column 2 lines 19 – 24, Krupin).

With respect to claim 21,

Krupin discloses a system according to claim 19 in which having said entry means is a dialog box (Figure 4, column 2 lines 19 – 24, Krupin).

With respect to claim 22,

Krupin discloses a system according to claim 19 in which having said entry means is a pick list (Figure 4, column 2 lines 25 – 42, Krupin).

With respect to claim 23,

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Krupin discloses a system according to claim 19 in which having said entry means is one or more of a set of radio buttons or graphical aid (Figure 4, column 2 lines 25 – 42, Krupin).

With respect to claim 24,

Krupin discloses a system according to claim 16 in which includes having said system search using all said first constraints and additional constraints (column 9 lines 1 – 5 and 58 – 63, Krupin).

With respect to claim 25,

Krupin discloses a system according to claim 16 in which includes having said system search using subsets of said constraints and additional constraints, keeping intermediate results and checking the remaining constraints if needed (column 11 lines 10 – 21 and 34 – 45, Krupin).

With respect to claim 26,

Krupin discloses a system according to claim 16 in which includes using modified constraints (column 2 lines 34 – 40, Krupin).

With respect to claim 27,

Krupin discloses a system according to claim 26 in which includes displaying said modified constraints (Figures 5, 6, 7 and column 11 lines 5 – 20, Krupin).



With respect to claim 28,

Krupin discloses a system according to claim 16 in which includes returning analysis such as the number of solutions for each subset of constraints (Figure 5, Krupin).

***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

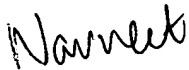
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Navneet K. Ahluwalia whose telephone number is 571-272-5636. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alam T. Hosain can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Navneet K. Ahluwalia  
Examiner  
Art Unit 2166



MOHAMMAD ALI  
PRIMARY EXAMINER

Dated: 08/10/2006